

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) Exclusionary General Air Permit

COMMONWEALTH OF VIRGINIA- DEQ DOCUMENT CERTIFICATION FORM

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE:		DATE:	
NAME:			_
TITLE:			_
COMPANY:			_
REGISTRATION	NUMBER:		
Reference: Virgi	nia Regulations, 9 VAC 5 Chapter 500		

VIRGINIA DEQ - EXCLUSIONARY GENERAL AIR PERMIT

COMPLIANCE CERTIFICATION FORM					
Registration number (if applicable):					
Company name and address:					
Plant name and address (if different):	Plant site manager or contact:				
	Telephone:				
Description of source processes and products,	by SIC:				
Owner signature:	Date:				
The applicant above certifies that the entire facility as described in this application will operate in compliance with 9 VAC 5 Chapter 500 and in such a manner that results in actual air emissions below the exemption levels in 9 VAC 5-500-90.					

PROCESSING, MANUFACTURING AND OTHER OPERATIONS (LIST ALL INDIVIDUAL PROCESSES AND PIECES OF EQUIPMENT SUCH AS COMBUSTION SOURCES, CHEMICAL PROCESSES, ETC.)

COMPANY NAME	DATE	REGISTRATION NUMBER

UNIT REF.	EMISSIONS UNIT OR GROUP OF EMISSIONS UNITS (PROVIDE MANUFACTURER OR CONSTRUCTION DATE)*	MAXIMUM ACTUAL FEED INPUT** MAXIMUM ACTUAL FEED OUTPUT**				
NO.	(FROVIDE MANOI AGTORER OR GONOTROGITOR DATE)	/HR	/DAY	/YEAR		

^{*} Optional: If possible, please include flow diagram (process schematic) relating process steps and a narrative description including feed materials, product materials, reaction intermediates and byproducts; attach complete MSDS for raw materials used or consumed and products manufactured or handled.

REVI SED April 24, 1997

^{**} Required: Specify units for each operation in tons, pounds, gallons, etc., as applicable.

CRITERIA POLLUTANT EMISSIONS (MAY BE OPTIONAL-CONTACT DEQ REGIONAL OFFICE)

COMPANY NAME	DATE	REGISTRATION NUMBER

	ACTUAL EMISSION RATES TO ATMOSPHERE OF CRITERIA POLLUTANTS														
UNIT REF. NO.	TO ⁻ SUSPE PARTIC (TS (SURRC	CULATE P) *	10 µľ SMA PARTIC (PM	M OR LLER CULATE M ₁₀)*	SULFUR (S	DIOXIDE O ₂)	OXI	OGEN DES O _x)	CAR MON((C	BON DXIDE O)	VOLA ORG COMPO (VO	ANIC DUNDS	LE (F	AD Pb)	BASIS OF ESTIMATE (USE CODE M)
	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment to support reported values)

- 1. Stack Test (include a copy of summary)
- 2. Material Balance (include calculations)
- 3. Emission Factor (identify source) and include calculations

99. Other (describe)

REVI SED April 24, 1997 FORM 500

^{*} TSP, PM₁₀, VOCs should also be split up by component and reported under HAZARDOUS POLLUTANTS.

TOXIC OR HAZARDOUS OR OTHER REGULATED POLLUTANT EMISSIONS (MAY BE OPTIONAL-CONTACT DEQ REGIONAL OFFICE)

COMPANY NAME	DATE	REGISTRATION NUMBER
		1

	ACTUAL EMISSION RATES TO ATMOSPHERE OF HAZARDOUS OR OTHER REGULA	TED POLLUTANTS	(specify)	
UNIT REF.	EF. CONTROLLED EMISSIONS	BASIS OF ESTIMATES		
NO.	NAME AND CAS#	lb/hr	tons/yr	(USE CODE M)

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment, if applicable)

REVI SED April 24, 1997

^{1.} Stack Test (include a copy of summary)

Material Balance (include calculations)

^{3.} Emission Factor (identify source) and include calculations

^{99.} Other (describe)

EXCLUSIONARY GENERAL PERMIT FOR FEDERAL OPERATING PERMIT PROGRAM (9 VAC 5 Chapter 500)

The Commonwealth of Virginia has in place a federal operating permit program (Article 1 of 9 VAC 5 Chapter 80) to meet the requirements of Title V of the Federal Clean Air Act.

The Exclusionary General Permit provides a legally enforceable mechanism for major sources subject to the federal operating permit program to be excluded from the program provided they maintain their actual annual emissions at a level that is 50% of the major source, potential to emit applicability thresholds for the federal operating permit program. This is one of two alternative permit mechanisms available to exclude major sources from the federal operating permit program; the other is the state operating permit program (9 VAC 5-80-40). The regulation does not require any owner to apply for coverage under the general permit but provides the opportunity for an owner to apply for coverage if the stationary source meets the 50% of the threshold criteria and all other requirements of the regulation.

Stationary sources that qualify as a major source as defined in the federal operating permit program may apply for an Exclusionary General Permit provided that their actual emissions in the two annual periods (24 consecutive months) preceding submittal of a permit application do not exceed any of the following levels:

- 1. 50 tons per year of any regulated air pollutant (excluding pollutants cited in item 2 below for the localities cited in item 2 and hazardous air pollutants).
- 2. 25 tons per year of volatile organic compounds or nitrogen oxides in the following localities: Arlington County, Fairfax County, Loudoun County, Prince William County, Stafford County, Alexandria City, Fairfax City, Falls Church City, Manassas City, and Manassas Park City.
 - 3. 5 tons per year of a single hazardous air pollutant.
 - 4. 12.5 tons per year of any combination of hazardous air pollutants.

The Exclusionary General Permit may not be issued to any stationary source required to obtain a federal operating permit for any reason other than being a major source. This primarily includes, but is not limited to, any source, including an area source, subject to any standard or other requirement adopted pursuant to § 111 (40 CFR Part 60) or § 112 (40 CFR Parts 61 and 63) of the federal Clean Air Act.

LIST OF 188 HAZARDOUS AIR POLLUTANTS UNDER TITLE III (SECTION 112) OF THE 1990 CLEAN AIR ACT AMENDMENTS

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Number
              Chemical Name
              Acetaldehyde
75070
60355
              Acetamide
75058
98862
              Acetonitrile
              Acetophenone
              2-Acetylaminofluorene
53963
107028
79061
              Acrolein
              Acrylamide
79107
              Acrylic acid
107131
107051
              Acrylonitrile
Allyl chloride
92671
              4-Aminobiphenyl
62533
              Aniline
90040
              o-Anisidine
1332214
              Asbestos
              Benzene (including benzene from gasoline)
71432
92875
              Benzidine
              Benzotrichloride
98077
100447
              Benzyl chloride
92524
              Biphenyl
              Bis(2-ethylhexyl)phthalate (DEHP)
117817
              Bis(chloromethyl) ether
542881
75252
              Bromoform
106990
              1.3-Butadiene
156627
              Calcium cyanamide
133062
63252
              Captan
              Carbaryl
75150
              Carbon disulfide
56235
463581
              Carbon tetrachloride
              Carbonyl sulfide
120809
              Catechol
133904
              Chloramben
57749
              Chlordane
7782505
              Chlorine
79118
              Chloroacetic acid
532274
              2-Chloroacetophenone
108907
              Chlorobenzene
510156
              Chlorobenzilate
67663
              Chloroform
107302
126998
              Chloromethyl methyl ether
              Chloroprene
1319773
              Cresols/Cresylic acid (mixed isomers)
95487
              o-Cresol
108394
              m-Cresol
106445
              p-Cresol
Cumene
98828
94757
              2,4-D, (2,4-Dichlorophenoxyacetic Acid), (including salts and esters)
72559
              DDE (1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene)
334883
              Diazomethane
132649
              Dibenzofuran
96128
84742
              1,2-Dibromo-3-chloropropane
Dibutyl phthalate
106467
              1,4-Dichlorobenzene
91941
111444
              3,3'-Dichlorobenzidine
Dichloroethyl ether (Bis(2-chloroethyl)ether)
              1,3-Dichloropropene
542756
62737
              Dichlorvos
111422
              Diethanolamine
64675
119904
              Diethyl sulfate
              3,3'-Dimethoxybenzidine
121697
              N,N-Dimethylaniline
60117
              4-Dimethylaminoazobenzene
119937
              3.3'-Dimethylbenzidine
79447
              Dimethylcarbamoyl chloride
68122
57147
              N,N-Dimethylformamide
1,1-Dimethylhydrazine
131113
77781
              Dimethyl phthalate
              Dimethyl sulfate
              4,6-Dinitro-o-cresol (including salts)
51285
21142
              2,4-Dinitrophenol
              2 4-Dinitrotoluene
123911
              1,4-Dioxane (1,4-Diethyleneoxide)
              1,2-Diphenylhydrazine
Epichlorohydrin (1-Chloro-2,3-epoxypropane)
122667
106898
106887
              1,2-Epoxybutane
140885
100414
              Ethyl acrylate
Ethylbenzene
51796
              Ethyl carbamate (Urethane)
75003
106934
              Ethyl chloride (Chloroethane)
Ethylene dibromide (Dibromoethane)
107062
              Ethylene dichloride (1,2-
                                         Dichloroethane)
107211
              Ethylene glycol
Ethyleneimine (Aziridine)
151564
75218
96457
              Ethylene oxide
              Ethylene thiourea
75343
              Ethylidene dichloride (1,1-Dichloroethane)
50000
              Formaldehyde
76448
              Heptachlor
118741
              Hexachlorobenzene
87683
              Hexachlorobutadiene
77474
              Hexachlorocyclopentadiene
67721
822060
              Hexachloroethane
              Hexamethylene diisocyanate
680319
              Hexamethylphosphoramide
110543
302012
              Hexane
              Hydrazine
7647010
              Hydrochloric acid (Hydrogen chloride [gas only])
7664393
123319
              Hydrogen fluoride (hydrofluoric acid)
              Hydroquinone
78591
              1,2,3,4,5,6-hexachlorocyclohexane (all stereo isomers including Lindane)
108316
              Maleic anhydride
67561
              Methanol
              Methoxychlor
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72435

74839 Methyl bromide (Bromomethane) 74873 71556 Methyl chloride (Chloromethane)
Methyl chloroform (1,1,1-Trichloroethane) 78933 Methyl ethyl ketone (2-Butanone) 60344 74884 Methylhydrazine Methyl iodide (lodomethane) 108101 Methyl isobutyl ketone (Hexone) 624839 Methyl isocyanate 80626 Methyl methacrylate 1634044 Methyl tert-butyl ether 101144 4,4'-Methylenebis(2-chloroaniline)
Methylene chloride (Dichloromethane) 75092 101688 4,4'-Methylenediphenyl diisocyanate (MDI) 4,4'-Methylenedianiline Naphthalene 101779 91203 98953 92933 Nitrobenzene 4-Nitrobiphenyl 100027 4-Nitrophenol 2-Nitropropane N-Nitroso-N-methylurea 79469 684935 N-Nitrosodimethylamine 62759 59892 N-Nitrosomorpholine 56382 Parathion 82688 Pentachloronitrobenzene (Quintobenzene) 87865 Pentachlorophenol 108952 Phenol 106503 75445 p-Phenylenediamine Phosaene 7803512 Phosphine 7723140 85449 Phosphorus Phthalic anhydride 1336363 Polychlorinated biphenyls (Aroclors) 1120714 1,3-Propane sultone 57578 beta-Propiolactone

123386 Propionaldehyde 114261

Propoxur (Baygon)
Propylene dichloride (1,2-Dichloropropane) 78875

75569 75558 Propylene oxide 1,2-Propylenimine (2-Methylaziridine)

91225 Quinoline 106514 Quinone 100425 Styrene 96093 Styrene oxide

1746016 2,3,7,8-Tetrachlorodibenzo-p-dioxin 79345 1,1,2,2-Tetrachloroethane

127184 Tetrachloroethylene (Perchloroethylene)

7550450 Titanium tetrachloride

108883 Toluene

95807 584849 2,4-Toluenediamine

2,4-Toluene diisocyanate 95534 o-Toluidine

8001352

Toxaphene (chlorinated camphene) 1,2,4-Trichlorobenzene 120821

79005 1,1,2-Trichloroethane Trichloroethylene 2,4,5-Trichlorophenol 79016 95954 88062 2,4,6-Trichlorophenol 121448 Triethylamine 1582098 Trifluralin

540841 2,2,4-Trimethylpentane 108054 Vinvl acetate 593602 Vinyl bromide 75014 Vinyl chloride

75354 Vinylidene chloride (1.1- Dichloroethylene)

1330207 Xylenes (mixed isomers)

95476 o-Xvlene 108383 m-Xylene 106423 p-Xylene

Source Categories

Antimony Compounds

Arsenic Compounds (inorganic including arsine)

Beryllium Compounds Cadmium Compounds Chromium Compounds Cobalt Compounds Coke Oven Emissions Cyanide Compounds1 Glycol ethers Lead Compounds Manganese Compounds Mercury Compounds Fine mineral fibers³ Nickel Compounds Polycyclic Organic Matter⁴ Radionuclides (including radon)5

Note: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure

¹X'CN where X = H' or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)₂,

 $^2 \ \text{Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol } R-(OCH_2CH_2)_n-OR'$ where:

R = alkyl or aryl groups

Selenium Compounds

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH₂CH₂)_n-OH. Polymers are excluded from the glycol category.

Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) having a fiber diameter less than 3.5µm and possessing an aspect ratio (fiber length divided by fiber diameter) greater than 3.

Includes substituted and/or unsubstituted polycyclic aromatic hydrocarbons and aromatic heterocycle compounds, with two or more fused rings, at least one of which is benzenoid (i.e., containing six carbon atoms and is aromatic) in structure. Polycyclic Organic Matter is a mixture of organic compounds containing one or more of these polycyclic aromatic chemicals which include dioxins and furans. Polycyclic Organic Matter is generally formed or emitted during thermal processes including (1) incomplete combustion, (2) pyrolysis, (3) the volatilization, distillation or processing of fossil fuels or bitumens, or (4) the distillation or thermal processing of non-fossil fuels. The Administrator may delineate, by test method, what is included in polycyclic organic matter.

⁵A type of atom which spontaneously undergoes radioactive decay.

From 9 VAC 5-80-60 C

Regulated Air Pollutant means any of the following:

- Nitrogen oxides or any volatile organic compound.
- b. Any pollutant for which an ambient air quality standard has been promulgated.
- Any pollutant subject to any standard promulgated under §111 of the federal Clean Air Act.
- d. Any Class I or II substance subject to a standard promulgated under or established by Title VI of the federal Clean Air Act concerning stratospheric ozone protection.
- e. Any pollutant subject to a standard promulgated under or other requirements established under §112 of the federal Clean Air Act concerning hazardous air pollutants and any pollutant regulated under Subpart C of 40 CFR 68.
- f. Any pollutant subject to a regulation adopted pursuant to requirement of the Code of Virginia governing a specific subject or category of sources.

Major Source means:

- a. For hazardous air pollutants other than radionuclides, any stationary source that emits or has the potential to emit, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources.
- b. For air pollutants other than hazardous air pollutants, any stationary source that directly emits or has the potential to emit 100 tons per year or more of any air pollutant (including any major source of fugitive emissions of any such pollutant). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source, unless the source belongs to one of the following categories
- 1. Coal cleaning plants (with thermal dryers).
- Kraft pulp mills.
- Portland cement plants.
- 4. Primary zinc smelters.5. Iron and steel mills.
- Primary aluminum ore reduction plants.
- Primary copper smelters.
- Municipal incinerators capable of charging more than 250 tons of refuse per day.
- 9. Hydrofluoric, sulfuric, or nitric acid plants.
- 10. Petroleum refineries.
- Lime plants.
- 12. Phosphate rock processing plants.
- 13. Coke oven batteries.
- Sulfur recovery plants
- Carbon black plants (furnace process).
- Primary lead smelters.
- Fuel conversion plant.
- 18. Sintering plants.19. Secondary metal production plants.
- Chemical process plants.

 Fossil-fuel boilers (or combination of them) totaling more than 250 million British thermal units per hour heat input.
- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels.
- 23 Taconite ore processing plants.
- 24. Glass fiber processing plants.
- Charcoal production plants.
- 26. Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input
- 27 Any other stationary source category regulated under §111 or §112 of the federal Clean Air Act for which the Administrator has made an affirmative determination under §302(j) of the Act.
- c. For ozone nonattainment areas, any stationary source with the potential to entit 100 tons per year or more of volatile organic compounds or oxides of nitrogen in areas classified as "record in a stationary source with the potential to entit 100 tons per year or more of volatile organic compounds or oxides of nitrogen in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 26 tons per year or more in areas classified as "serious," 27 tons per year or more in areas classified as "serious," 25 tons per year or more in areas classified as "serious," 26 tons per year or more in areas classified as "serious," 27 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 28 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 29 tons per year or more in areas classified as "serious," 20 tons per year or more in areas clas
- areas) do not apply.
 d. For attainment areas in ozone transport regions, any stationary source with the potential to emit 50 tons per year or more of volatile organic compounds.

Potential to Emit means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is state and federally enforceable.

SUPPLEMENTAL DATA SHEET (OPTIONAL, CONTACT REGIONAL DEQ OFFICE) (PROVIDE INFORMATION ON THROUGHPUT/CONSUMPTION AND EMISSIONS OF REGULATED AIR POLLUTANTS)

COMPANY NAME	DATE	REGISTRATION NUMBER
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	Annual Process Throughput/Fuel Consumption, etc. (specify units)		Regulated Air Poll Emitted/Control	utant led	Actual Annual Emissions (tons per year)		Potential Annual Emissions (tons per year		Air Pollution Control Equipment	
Unit Ref. No.	Annual Period 19	Annual Period 19	Pollutant Name	Pollutant CAS# (if applicable)	Annual Period 19	Annual Period 19	Annual Period 19	Annual Period 19	Type (use Code)	Actual Control Efficiency

AIR POLLUTION CONTROL EQUIPMENT CODES

1. Settling Chambe	r
Cyclone	
Multicyclone	
Cyclone scrubbe	r
Orifice scrubber	

7. Venturi scrubber

(a) fixed throat	
(b) variable throat	
Mist eliminator	

Electrostatic Precipitator	
(a) hot side	
(b) cold side	
(c) high voltage	
(d) low voltage	
(e) single stage	
(f) two stage	
(g) other (specify)	
10. Filter	
(a) baghouse	
(b) other (specify)	
11. Catalytic Afterburner	
12. Direct Flame Afterburner	

13. ABSORBER
(a) packed tower
(b) spray tower
(c) tray tower
(d) venturi
(e) other (specify)
14. ADSORBER
(a) activated carbon
(b) molecular sieve
(c) activated alumina
(d)silica gel
(e) other (specify)
15. Condenser (specify)
99. Other (specify)